

Receipt

CERTIFICATE OF MAILING BY FIRST CLASS MAIL (37 CFR 1.8)			Docket No. 11345/030001						
Applicant(s): Francios KEY et al		Serial No. 09/786,778		Filing Date March 8, 2001		Examiner		Group Art Unit 2631	
Invention: APPLICATION TABLE FOR A MULTISERVICE DIGITAL TRANSMISSION SYSTEM									
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PATENT
U.S. PATENT APPLICATION: 09/786,778
ATTORNEY DOCKET NO. 11345.030001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Francios REY et al. Art Unit : 2631
Serial No. : 09/786,778 Examiner :
Filed : March 8, 2001
Title : APPLICATION DATA TABLE FOR A MULTISERVICE DIGITAL
TRANSMISSION SYSTEM

Assistant Commissioner for Patents
Washington, DC 20231

REQUEST TO CORRECT FILING RECEIPT

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Applicant requests correction of the number of claims in the application.

Enclosed is a copy of the filing receipt as received from the PTO. Please correct the number of total claims from "37" to --41--and the number of independent claims from "5" to --7-- as shown in the enclosed copies of:

- 1) page 2 of the written opinion showing the correct number of total claims; and
- 2) pages 34 - 39 of the Application showing the correct number of total claims and correct number of independent claims.

Because this is a PTO error, no petition is believed necessary. However, if a petition is deemed to be required, please consider this paper as such and charge the appropriate fees to Deposit Account 50-0591, reference No. 11345.030001. If there are any other charges, or any credits, please apply them to the same Deposit Account and reference

number.

Date: 5/18/01

Signature: Richard A. Fagin reg no 39,182
Jonathan P. Osha
Reg. No. 33,986 *for*

ROSENTHAL & OSHA L.L.P.
700 Louisiana Street, Suite 4550
Houston, TX 77002

Telephone: 713/228-8600
Facsimile: 713/228-8778

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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/786,778	03/08/2001	2631	1416	11343.030001 5	7	3741	87

CONFIRMATION NO. 6588

22511
ROSENTHAL & OSHA LLP
SUITE 4550
700 LOUISIANA
HOUSTON, TX 77002

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FILING RECEIPT

OC00000006037187

ROSENTHAL & OSHA L.L.P.

Date Mailed: 05/03/2001

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Francios Rey, Le Bourget Du Lac, FRANCE;
Thierry Furet, Rambouillet, FRANCE;
Philippe Poulain, Paris, FRANCE;

Domestic Priority data as claimed by applicant

THIS APPLICATION IS A 371 OF PCT/IB99/01637 09/24/1999

Foreign Applications

EUROPEAN PATENT OFFICE (EPO) 98402375.4 09/25/1998

Projected Publication Date: N/A

Non-Publication Request: No

Early Publication Request: No

Title

Application data table for a multiservice digital transmission system

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No Docketing Required
Date: 5.9.2001
Initials: *[Signature]*

375

Date: 05/03/2001



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Office of Initial Patent Examination
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WRITTEN OPINION

International application No. PCT/IB99/01637

I. Basis of the opinion

1. This opinion has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".*):

Description, pages:

1-33 as originally filed

Claims, No.:

1-41 as originally filed

Drawings, sheets:

1/7-7/7 as originally filed

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2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

3. This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been and will not be examined in respect of:

- ☐ the entire international application,
☒ claims Nos. 5-9, 18-22, 29-41,

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

above).

Even though the application A3 is not present and not required for all access to the possibilities provided by the service channel accessed via PMT2, the application
5 manager may nevertheless decide in dependence on the value application_flag to continue to run the application A3 in preference to, or as well as, downloading one or the other of the applications A2, A4. If the user then changes back to PMT1, the application A3 is thus immediately available.

10 Many other alternatives are possible. For example, the application manager may be configured to kill the application A1 (for example if A1 includes an application_exclusive flag associated with PMT1); to maintain A3 for a limited period of time before killing A3 and downloading A2, A4; to maintain A3 until the user
15 presses a key on the remote control and thereafter kill A3 and download one of the applications A2, A4 etc.

As will be understood, the use of an ADT table containing data over all services in a bouquet enables the application manager of the decoder to carry out an unusually
20 sophisticated evaluation regarding the maintenance or non-maintenance of applications carried in a plurality of service streams.

In the above example, the ADT table has been described as being downloaded from the broadcast transport stream. In practice, the ADT table, or at least a start up
25 version of the ADT table, may be loaded into the decoder at the moment of manufacture of the decoder, so as to enable the decoder to automatically load certain applications carried in some or all services in a bouquet. Alternatively, the decoder may download a version of the ADT table via its modem connection, via the smart card interface, via the serial port etc.

CLAIMS

1. A method of transmission of application data in a plurality of services in a digital transport stream, each of said plurality of services carrying at least one application, the method comprising the step of providing an application data table containing information regarding said at least one application carried by each of a plurality of the services within the transport stream.
2. A method as claimed in claim 1 wherein the application data table is transported in a transport packet having a predetermined packet ID value associated with the presence of an application data table within the packet.
3. A method as claimed in claim 1 or 2, wherein said application data table is electronically signed so as to permit a decoder to verify an application data table as originating from a known operator.
4. A method as claimed in any preceding claim wherein each service further comprises a programme map table giving access to applications carried by this service, the programme map table itself comprising information regarding said at least one application carried by this service.
5. A method as claimed in any preceding claim wherein the application data table further comprises information regarding which applications may be accessed via each service.
6. A method as claimed in any preceding claim wherein the application information carried in the application data table further includes information relating to the size of memory required to execute an application.
7. A method as claimed in any preceding claim wherein the application information in the application data table includes a priority value indicating the relative priority of

an application.

8. A method as claimed in any preceding claim wherein the application information in the application data table includes a service exclusive value indicating that an application is exclusive to at least one service.

9. A method as claimed in any preceding claim in which the application information in the application data table includes a flag value concerning the action to be taken with an application upon a change of service.

10

10. A method as claimed in any preceding claim, comprising providing a plurality of said application data tables, each application data table containing information regarding applications contained within a bouquet of services.

11. A method as claimed in claim 10 wherein each application data table is transported in one of a table and a section within a transport packet, each application data table being associated with one of a table and a section having one of a characteristic table ID and a characteristic table ID extension value.

12. A method as claimed in any preceding claim as applied to a digital television system.

13. A method as claimed in any preceding claim wherein the digital transport stream conforms to the MPEG standard.

25

14. A transmission apparatus for use in a method as claimed in any of claims 1 to 13, said apparatus comprising means for transmitting a transport stream comprising a plurality of services together with an application data table containing information regarding applications carried by a plurality of the services within the transport stream.

30

15. A transmission apparatus as claimed in claim 14 wherein the transmitting means is adapted to transmit the application data table in a transport packet having a

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predetermined packet ID value associated with the presence of an application data table within the packet.

5 16. A transmission apparatus as claimed in claim 14 or 15, comprising means for electronically signing said application data table so as to permit a decoder to verify an application data table as originating from a known operator.

10 17. A transmission apparatus as claimed in any of claims 14 to 16 wherein the transmitting means is adapted to transmit for each service a programme map table giving access to applications carried by that service, the programme map table itself comprising information regarding said at least one application carried by this service.

15 18. A transmission apparatus as claimed in any of claims 14 to 17 wherein the application data table further comprises information regarding which applications may be accessed via each service.

20 19. A transmission apparatus as claimed in any of claims 14 to 18 wherein the application information carried in the application data table further includes information relating to the size of memory required to execute an application.

20. A transmission apparatus as claimed in any of claims 14 to 19 wherein the application information in the application data table includes a priority value indicating the relative priority of an application.

25 21. A transmission apparatus as claimed in any of claims 14 to 20 wherein the application information in the application data table includes a service exclusive value indicating that an application is exclusive to at least one service.

30 22. A transmission apparatus as claimed in any of claims 14 to 21 wherein the application information in the application data table includes a flag value concerning the action to be taken with an application upon a change of service.

23. A transmission apparatus as claimed in any of claims 14 to 22, wherein the transmitting means is adapted to transmit a plurality of said application data tables, each application data table containing information regarding applications contained within a bouquet of services.

5

24. A transmission apparatus as claimed in claim 23 wherein the transmitting means is adapted to transmit each application data table in one of a table and a section within a transport packet, each application data table being associated with one of a table and a section having one of a characteristic table ID and a characteristic table ID extension value.

10

25. A transmission apparatus as claimed in any of claims 14 to 24 wherein the digital transport stream conforms to the MPEG standard.

15 26. A digital television system comprising transmission apparatus as claimed in any of claims 14 to 25.

27. A decoder for use in a method as claimed in any of claims 1 to 13, said decoder comprising a memory for storing an application data table comprising
20 information regarding applications carried by a plurality of services within the transport stream, and means for controlling at least one of the downloading and maintenance of such applications in dependence on the information contained within the application data table.

28. A decoder comprising a memory for storing an application data table comprising
25 information regarding applications carried by a plurality of services within the transport stream, and means for controlling at least one of the downloading and maintenance of such applications in dependence on the information contained within the application data table.

30

29. An application data table containing information regarding at least one application carried by each of a plurality of services within a transport stream.

30. A decoder or table as claimed in any of claims 27 to 29, wherein said application data table is electronically signed so as to permit a decoder to verify an application data table as originating from a known operator.

5

31. A decoder or table as claimed in any of claims 27 to 30 wherein the application data table further comprises information regarding which applications may be accessed via each service.

10

32. A decoder or table as claimed in any of claims 27 to 31 wherein the application information carried in the application data table further includes information relating to the size of memory required to execute an application.

15

33. A decoder or table as claimed in any of claims 27 to 32 wherein the application information in the application data table includes a priority value indicating the relative priority of an application.

20

34. A decoder or table as claimed in any of claims 27 to 33 wherein the application information in the application data table includes a service exclusive value indicating that an application is exclusive to at least one service.

25

35. A decoder or table as claimed in any of claims 27 to 34 in which the application information in the application data table includes a flag value concerning the action to be taken with an application upon a change of service.

36. A plurality of tables according to any of claims 29 to 35, each application data table containing information regarding applications contained within a bouquet of services.

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37. A plurality of tables as claimed in claim 36, wherein each application data table is associated with one of a table and a section having one of a characteristic table ID and a characteristic table ID extension value.

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38. A method of transmission of application data in a plurality of services in a digital transport stream substantially as herein described with reference to the accompanying drawings.

5 39. A transmission apparatus substantially as herein described with reference to the accompanying drawings.

40. A decoder substantially as herein described with reference to the accompanying drawings.

10

41. An application data table substantially as herein described with reference to the accompanying drawings.